WHAT IS CLAIMED IS:

1. An internal diversity antenna, comprising:

a common ground element formed as a conductor having predetermined length for grounding an antenna;

a first radiating element for radiating a vertically polarized wave of a predetermined band according to a ground condition of the antenna, wherein one end of the first radiating element is vertically connected to one end of the common ground element and the other end of the first radiating element is open;

a first feeding element connected to the first radiating element for feeding electric current to the first radiating element;

a second radiating element for radiating a horizontally polarized wave of the predetermined band according to a ground condition of the antenna, wherein one end of the second radiating element is vertically connected to the other end of the common ground element and the other end of the second radiating element is open; and

a second feeding element connected to the second radiating element for feeding electric current to the second radiating element.

2. The internal diversity antenna as set forth in claim

1, wherein the first feeding element is vertically connected to the first radiating element.

3. The internal diversity antenna as set forth in claim 1, wherein the second feeding element is vertically connected to the second radiating element.

4. The internal diversity antenna as set forth in claim 1, wherein the first or second radiating element is a wire radiating element.

5. The internal diversity antenna as set forth in claim 1, wherein the first or second radiating element is a planar radiating element.

6. The internal diversity antenna as set forth in claim 1, wherein the first feeding element and the second feeding element are arranged vertically to each other.

7. An internal diversity antenna, comprising:

a first radiating element for radiating a vertically polarized wave of a predetermined band according to a ground condition of the antenna;

a first feeding element connected to the first radiating element for feeding electric current to the first radiating

element;

a second radiating element for radiating a horizontally polarized wave of the predetermined band according to the ground condition of the antenna;

a second feeding element connected to the second radiating element for feeding electric current to the second radiating element; and

a common ground element for forming a ground by electromagnetic coupling between the first radiating element and the second radiating element, and grounding the first and second radiating elements,

wherein part of the first radiating element is vertically separated from part of the second radiating element by a predetermined distance (W2), the parts of first and second radiating elements overlapping each other, and the first or second radiating element is a planar radiating element.

8. The internal diversity antenna as set forth in claim 7, wherein the first feeding element is horizontally connected to the common ground element at a predetermined location adjacent to the common ground element of the first radiating element, and the second feeding element is vertically connected to the common ground element at a predetermined location adjacent to the common ground element of the second

radiating element.

9. An internal diversity antenna, comprising:

a first radiating element for radiating a vertically polarized wave of a predetermined band according to a ground condition of the antenna;

a second radiating element connected to one end of the first radiating element for radiating a horizontally polarized wave of the predetermined band according to the ground condition of the antenna;

a first feeding element for feeding electric current to the first radiating element, wherein the first feeding element is connected to a connection part to which the first and second radiating elements are connected;

a second feeding element vertically connected to the first radiating element at the connection part for feeding electric current to the second radiating element; and

a common ground element vertically connected to the first and second radiating elements at the connection part for grounding the antenna.

10. The internal diversity antenna as set forth in claim 9, wherein the first feeding element is connected in a lengthwise direction of the first radiating element at the connection part to which the first and second radiating

elements are connected, and the second feeding element is connected in a lengthwise direction of the second radiating element at the connection part.